

APPARATUS AND METHOD FOR CONSERVING MEMORY  
IN A FINE GRANULARITY SCALABILITY CODING SYSTEM

## ABSTRACT OF THE DISCLOSURE

5 Decoding time stamps (DTSS) and presentation time stamps (PTSs) are used in fine granularity scalability (FGS) coding during MPEG-4 video coding. An input video is encoded in an FGS encoder into a base layer bitstream and an enhancement bitstream. The bitstreams are provided over  
10 a variable bandwidth channel to an FGS decoder. The DTSS and the PTSs are selected during encoding as to conserve memory during FGS decoding. The video object planes (VOP) in the bitstreams include base VOPs and FGS VOPs, and may also include fine granularity temporal scalability (FGST)  
15 VOPs. The FGS VOPs and the FGST VOPs may be organized in the same layer or in different layers. The base VOPs are combined with the FGS VOPs and the FGST VOPs to generate enhanced VOPs.